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- (71) Applicant (for all designated States except US): TOTAL

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PETROCHEMICALS RESEARCH FELUY (BE/BE):
Zone Industrielle C, B-7181 Seneffe (Feluy) (BE).

(72) Inventor; and
(73) Inventor; and
(74) Inventor; and
(75) Inventor; and
(75) Inventor; and
(75) Inventor; and
(76) Inventor; and
(77) Inventor; and
(78) Inventor; and
(78) Inventor; and
(79) Inventor; and
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(84) Title: PROCESS TO PRODUCE BIMODAL POLYOLEFIN WITH METALLOCENE CATALYSTS USING TWO CONTINUOUSLY STITRED TANK REACTORS

(57) Abstract: This invention discloses a process for the preparation of polyolefin shaving a bi-or multimodal molecular weight distribution comprising the steps of: (i) contacting olefin monomer and a first co-reactant with a catalyst system in a first continuously stirred reactor under first polymerisation conditions to produce a product comprising a first polyolefin having a first molecular weight of the continuous of the produce a product comprising a first polyolefin having a first molecular weight distribution; and (ii) contacting olefin monomer and a second co-reactant with a catalyst system in a second continuously stirred reactor under first polymerisation conditions to produce a product comprising a first polyolefin having a first molecular weight distribution; and (ii) contacting olefin monomer and a second co-reactant with a catalyst system in a second continuously stirred reactor under second polymerisation conditions to produce a product comprising a first polyolefin having a first molecular weight distribution; and (ii) contacting olefin monomer and a second co-reactant with a catalyst system in a second continuously stirred cator under second polymerisation conditions to produce a product comprising the second polymerisation conditions to produce a product comprising the second polymerisation conditions to produce a product comprising the second poly distribution; and (ii) contacting olefin monomer and a second co-reactant with a catalyst system in a second continuously stirred reactor under second polymerisation conditions to produce a product comprising a second polyolefin having a second molecular weight distribution that is different from the first molecular weight distribution; wherein the first and second continuously stirred reactors are connected in series, and the first and second polyolefins are mixed together, and wherein one of the co-reactants is hydrogen and the other is a comonomer, and wherein each catalyst system comprises (a) a bisindenyl catalyst component; and (b) an activating agent which activates the catalyst component.

